IN THE CLAIMS

Please cancel claims 10, 22, 37 and 40, and further amend the claims as indicated below.

1. (currently amended) A method of testing an electrical switchgear system, comprising:

applying ~~an~~ a first analog signal to a first node in said electrical switchgear system,

wherein said first node monitors a first power line signal and controls a first breaker based on said first power line signal, and

wherein said first analog signal simulates said first power line signal; ~~and~~

applying, simultaneously with said applying said first analog signal, a second analog signal to a second node in said electrical switchgear system,

wherein said second node monitors a second power line signal and controls a second breaker based on a second power line signal,

wherein said second analog signal simulates said second power line signal, and

wherein said first analog signal and said second analog signal, together, simulate a differential condition between said first power line signal and said second power line signal;

receiving data indicative of a response of said electrical switchgear system to said ~~analog signal~~ first and second analog signals~~,~~

~~wherein said data is received from a second node in said electrical switchgear system, and~~

~~wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal~~; and

providing said data in a tangible form.

2. (canceled)

3. (currently amended) The method of claim 1, wherein said first analog signal has a magnitude of less than about 10 volts peak-to-peak.

4. (currently amended) The method of claim 1, wherein said first analog signal has a magnitude of about 2.5 volts peak-to-peak.

5. (currently amended) The method of claim 1, wherein said first analog signal has a magnitude of less than or equal to about 10% of a magnitude of said first power line signal.

6. (currently amended) The method of claim 1, wherein said applying said first analog signal is performed while said first node monitors said first power line signal.

7. (currently amended) The method of claim 1, wherein said first analog signal simulates a fault condition of said first power line signal.

8. (currently amended) The method of claim 1, wherein said first analog signal simulates a non-fault condition of said first power line signal.

9. (currently amended) The method of claim 1, further comprising:
modifying said first analog signal based on said response; and
receiving additional data representing a further response of said electrical switchgear system.

10. (canceled)

11. (previously presented) The method of claim 1, further comprising measuring a time required for the said first breaker to trip based on timestamps of said data.

12. (canceled)

13. (currently amended) An arrangement for testing an electrical switchgear system, comprising:
a generator ~~for~~ for:
(a)applying ~~an~~ a first analog signal to a first node in said electrical switchgear system,

wherein said first node monitors a first power line signal and controls a first breaker based on said first power line signal, and

wherein said first analog signal simulates said first power line signal; and

(b) applying, simultaneously with said applying said first analog signal, a second analog signal to a second node in said electrical switchgear system,

wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal,

wherein said second analog signal simulates said second power line signal, and

wherein said first analog signal and said second analog signal, together, simulate a differential condition between said first power line signal and said second power line signal; and

an interface for receiving data indicative of a response of said electrical switchgear system to said ~~analog signal~~ first and second analog signals~~,~~

~~wherein said data is received from a second node in said electrical switchgear system, and~~

~~wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal~~.

14. (canceled)

15. (currently amended) The arrangement of claim 13, wherein said first analog signal has a magnitude of less than about 10 volts peak-to-peak.

16. (currently amended) The arrangement of claim 13, wherein said first analog signal has a magnitude of about 2.5 volts peak-to-peak.

17. (currently amended) The arrangement of claim 13, wherein said first analog signal has a magnitude of less than or equal to about 10% of a magnitude of said first power line signal.

18. (currently amended) The arrangement of claim 13, wherein said generator applies said first analog signal while said first node monitors said first power line signal.

19. (currently amended) The arrangement of claim 13, wherein said first analog signal simulates a fault condition of said first power line signal.

20. (currently amended) The arrangement of claim 13, wherein said first analog signal simulates a non-fault condition of said first power line signal.

21. (previously presented) The arrangement of claim 13, wherein said arrangement:

modifies said first analog signal based on said response; and

receives additional data representing a further response of said electrical switchgear system.

22. (canceled)

23. (previously presented) The arrangement of claim 13, further comprising a processor for measuring a time required for the said first breaker to trip based on timestamps of said data.

24. (canceled)

25. (currently amended) A storage medium comprising instructions for controlling a processor for testing an electrical switchgear system to:

apply ~~an~~ a first analog signal to a first node in said electrical switchgear system,

wherein said first node monitors a first power line signal and controls a first breaker based on said first power line signal, and

wherein said first analog signal simulates said first power line signal; ~~and~~

apply, simultaneously with said applying said first analog signal, a second analog signal to a second node in said electrical switchgear system,

wherein said second node monitors a second power line signal and controls a second breaker based on a second power line signal,

wherein said second analog signal simulates said second power line signal, and

wherein said first analog signal and said second analog signal, together, simulate a differential condition between said first power line signal and said second power line signal;

receive data indicative of a response of said electrical switchgear system to said ~~analog signal,~~ first and second analog signals; and

~~wherein said data is received from a second node in said electrical switchgear system, and~~

~~wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal~~

provide said data in a tangible form.

26. (canceled)

27. (currently amended) The method of claim 1, wherein said first node continues to monitor said first power line signal and control said first breaker during said applying of said first analog signal.

28. (canceled)

29. (currently amended) The arrangement of claim 13, wherein said first node ~~first~~ continues to monitor said first power line signal and control said first breaker during said applying of said first analog signal.

30. (canceled)

31. (currently amended) The storage media of claim 25, wherein said first node continues to monitor said first power line signal and control said first breaker during said applying of said first analog signal.

32. (canceled)

33. (currently amended) A system, comprising:

a first node that monitors a first power line signal and controls a first breaker based on said first power line signal;

a second node that monitors a second power line signal and controls a second breaker based on said second power line signal;

a generator ~~for~~ for:

(a) applying ~~an~~ a first analog signal to said first node, wherein said first analog signal simulates said first power line signal; and

(b) applying, simultaneously with said applying said first analog signal, a second analog signal to a second node, wherein said second analog signal simulates said second power line signal,

wherein said first analog signal and said second analog signal, together, simulate a differential condition between said first power line signal and said second power line signal; and

an interface for receiving data indicative of a response of said electrical switchgear system to said ~~analog signal~~ first and second analog signals~~,~~

~~wherein said data is received from a second node in said electrical switchgear system, and~~

~~wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal~~.

34. (currently amended) The system of claim 33, wherein said first node continues to monitor said first power line signal and control said first breaker during said applying of said first analog signal.

35. (currently amended) An arrangement for testing an electrical switchgear system, comprising:

(a) a generator for simultaneously applying:

(i) a first test signal to a first node in said electrical switchgear system, wherein said first node monitors a first power line signal and controls a first breaker based on said first power line signal; and

(ii) a second test signal to a second node in said electrical switchgear system, wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal,

wherein said first and second test signals, together, simulate ~~an event~~ a fault in said electrical switchgear system that involves both of said first and second nodes; ~~and~~

(b) an interface for receiving data indicative of a response of said electrical switchgear system to said application of said first and second test signals; and

(c) a processor that determines, from said data, whether said electrical switchgear system tripped said first and second breakers in a correct sequence.

36. (currently amended) The arrangement of claim 35, wherein said ~~event~~ fault comprises a differential ground fault between said first power line signal and said second power line signal.

37. (canceled)

38. (currently amended) A system comprising:

(a) a first node that monitors a first power line signal and controls a first breaker based on said first power line signal;

(b) a second node that monitors a second power line signal and controls a second breaker based on said second power line signal;

(c) a switchgear processor that receives a first communication from said first node regarding said first power lines signal, receives a second communication from said second node regarding said second power line signal, and based on said first and second communications, controls said first and second nodes to co-ordinate said control of said first breaker and said control of said second breaker;

(d) a generator that simultaneously applies:

(i) a first test signal to said first node in said ~~electrical switchgear~~ system; and

(ii) a second test signal to said second node,

wherein said first and second test signals, together, simulate ~~an event~~ a fault in said system that involves both of said first and second nodes; ~~and~~

(e) an interface that receives data indicative of a response of said ~~electrical switchgear~~ system to said application of said first and second test signals; and

(f) a test processor that determines, from said data, whether said system tripped said first and second breakers in a correct sequence.

39. (currently amended) The system of claim 38, wherein said ~~event~~ fault comprises a differential ground fault between said first power line signal and said second power line signal.

40. (canceled)